

IN THE CLAIMS

1-11. (Currently Canceled)

12. (Currently Amended) An array of planar T-RAM cells comprising:

a plurality of T-RAM cells, said plurality of T-RAM cells being arranged in an array and fabricated over a substrate, each of said plurality of T-RAM cells including a first-buried vertical thyristor and a ~~second device~~ horizontally stacked pseudo-TFT transfer gate, said ~~first device~~ thyristor being buried underneath said ~~second device~~ transfer gate, wherein said ~~second device~~ transfer gate covers the entire top surface of said ~~first device~~ thyristor, and further wherein the top surface of said ~~second device~~ transfer gate forms a planar top surface of each said T-RAM cell.

13. (Currently Canceled)

14. (Original) The array according to Claim 12, wherein each of the plurality of T-RAM cells has a size of less than or equal to $8F^2$.

15. (Previously Amended) The array according to Claim 12, wherein said substrate is a semiconductor SOI or bulk wafer.

16. (Previously Amended) The array according to Claim 13, wherein a base of said thyristor is surrounded by a surrounded gate.

17. (Currently Amended) The array according to Claim 12, wherein said planar top surface of each T-RAM cell provides for simplified fabrication of ~~metal wirings~~ wordlines, said ~~wirings~~ wordlines being fabricated over said planar top surface of said T-RAM cells, said ~~wirings~~ wordlines for interconnecting said T-RAM cells.

18-30. (Currently Canceled)

31. (New) An array of planar T-RAM cells comprising:

a plurality of T-RAM cells, said plurality of T-RAM cells being arranged in an array and fabricated over a substrate, each of said plurality of T-RAM cells including a buried vertical thyristor and a horizontally stacked pseudo-TFT transfer gate, said thyristor being buried underneath said transfer gate, said transfer gate covering a part of a top surface of said thyristor, the top surface of said transfer gate forming a planar top surface of each said T-RAM cell.